

## Education And Training On Digital Classroom Design Development For Elementary School Teachers In Burneh District

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**Abstract:** *With the open access to information in the era of the Industrial Revolution 4.0 and the rapid development of technology, teachers are no longer the main source of learning. This requires teachers to use technology in the learning process. With the presence of gadgets that they carry everyday, they can be utilised for learning activities. The purpose of this activity is to improve teacher competence in developing digital classroom design using the google classroom application. The methods used were lectures, questions and answers, discussions, group practices, guidance services, simulations and group presentations. The results obtained show that the fourth grade teachers of elementary school in Burneh District as training participants have skills in developing digital classroom design using google classroom applications from the beginning of the learning process to learning evaluation*

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### INTRODUCTION

Elementary school teachers, especially in Burneh sub-district, do not have many skills in designing digital classrooms as a form of professional and academic ability. Suarsana and Mahayukti (2013: 264) state that one of the challenges of education today is 21<sup>st</sup> Century skills, including information and communication technology literacy skills, critical thinking skills, problem solving skills, effective communication skills and collaborate skills. According to the United Nations (UN), the characteristics of a globalised society are knowledge-based society and 21<sup>st</sup> century skills.

Learning models can be categorised into two, namely, student-centred constructivist models and teacher-centred conventional models. Traditional learning models include lectures, concept teaching and direct instruction. While student-centred learning models include self-learning, problem-based, class discussion and cooperative learning. Learning models using digital media emphasise the potential and needs of students to be able to learn independently which is built through the learning community in the classroom (Department of Geography FMIPA UI, 2010). With the digital-based learning model, it becomes one of the alternatives in arousing students' interest in learning, so that the quality of education is getting better.

One of the current technological developments is gadgets. Gadgets are widely used

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from elementary school age to adults. Based on the observations of the Field Practice Study (KPL), it was found that a number of elementary school students carried gadgets but were not used during lessons. However, when these students return from school, the gadgets are used and they do not immediately go home to their respective homes. One of the gadgets they use is a smartphone (Rozalia, 2017). In the current era, gadgets cannot be abandoned, but they can be utilised in the learning process. Students not only use gadgets for entertainment, but can be used for digital classes. One application that can be downloaded on the Play Store is Google Classroom.

Google Classroom is one of the innovative learning models based on e-learning. It can do time efficiency and paperless campaign. Google Classroom can be obtained for free by registering for a Google Application for Education account. One of the sophistication of this application is that it can be used together in groups collaboratively (What are the advantages of Google Classroom – Start Up \_ Products – Dictio Community, n.d.). Teachers can utilise this app to conduct digital classroom learning. Starting from greeting students to conducting a digital learning evaluation process.

This training is conducted with the aim of improving teacher competence in the use of information technology in the learning process. This activity is expected to have an effect on improving the quality of teachers in developing digital classroom design, so that in the end students can carry out a pleasant learning process and achieve learning objectives. Teachers can assist students anywhere by utilising this google classroom application. This will provide the best experience for teachers and students when conducting teaching and learning process activities. Teachers can conduct innovative learning models based on e-learning..

## **METHOD**

The development of digital classroom design for elementary school teachers in Burneh Subdistrict is the result of cooperation between the Burneh Subdistrict Education Office and STAI Darul Hikmah Bangkalan. This activity was carried out in the STAI Darul Hikmah campus hall for two days.

The methods used were (1) lectures, (2) questions and answers, (3) discussions, (4) group practice, (5) guidance services, (6) simulations and (7) group presentations (microteaching). The material presented in this training is the skill material for developing digital classroom design using the Google classroom application from the beginning of the learning process to the evaluation of learning.

The list of materials for the Digital Classroom Design Development Training is below

**Table 1.**  
List of Digital Classroom Design Development Training Materials

No	MATERIAL	JP
1	Pre-test	1
2	Digital Learning Paradigms 1	1
3	Digital Classroom Design Model	2
4	<i>Google Classroom and its implementation in learning</i>	2
5	Practice 1	3
6	Development of a Digital-based Learning Evaluation System	3
7	Practice II	3
8	Learning Simulation with the Google Classroom Application	5
9	Group Presentation	3
10	Microteaching with Digital Classes	6
11	Post-test	1
	JUMLAH	30

There were 47 teachers who participated in the digital classroom design development training from elementary school teachers in Burneh sub-district, as well as Burneh sub-district supervisors. Each school sent two teachers to participate in this training, namely the principal and elementary school teacher. One of the reasons for participating in this digital classroom training is elementary school teachers because elementary school teachers hold students aged between 10-11 years, where children of that age are able to operate gadgets, one of which is the Google classroom application. In the use of gadgets not only tends towards negative, but can be directed towards positive. One of them can be utilised as a learning media at home. Gadgets are used by young people including students at primary school age to adults. The use of gadgets is different in elementary school children, different from teenagers and adults. Elementary school-age children use gadgets as entertainment. (Rozalia, 2017).

## **RESULTS AND DISCUSSION**

The results obtained by participants from the training activities are: (1) Burneh sub-district elementary school teachers have sufficient knowledge and insight into developing digital classroom design; (2) Burneh sub-district elementary school teachers have skills in developing digital classrooms; (3) Burneh sub-district elementary school teachers are able to operate the google classroom application; (4) Burneh sub-district elementary school teachers are able to upload elementary school materials in the google classroom application; (5) Burneh sub-district elementary school teachers are able to give assignments or questions about elementary school materials in the google classroom application; (6) Burneh sub-district elementary school teachers are able to evaluate the learning process through the

google classroom application. Elementary school teachers in Burneh sub-district who participated in the training and mentoring activities were very enthusiastic in participating in the digital classroom design development training as a support for skills in carrying out the learning process.

Teachers who take part in this training and mentoring are expected to be able to disseminate their knowledge and skills to other teachers around their place of work. The evaluation results during the implementation showed that during the training process, participants were serious and enthusiastic in participating in the training. The seriousness and enthusiasm of the participants can be seen from the activity of asking questions and doing the exercises given by the instructor. Starting from making greeting videos, uploading materials, giving assignments or questions to the learning evaluation stage. The percentage of attendance of participants was 95%. Evaluation of the final results can be concluded that 90% of the 47 participants have understood the knowledge and skills about digital classroom development through the Google classroom application. After being given training, there was a change in view towards a positive direction towards improving professionalism in the field of teaching. Teachers and students can conduct the learning process outside the classroom or at home. Students can utilise gadgets in a positive direction. Teachers can develop their skills in providing material because the material is not only presented through the lecture method but can also be presented through images or videos that can attract students to learn and make it easier for students to understand the material provided.

With the advancement of technology being one of the main triggers for the increasing number of innovations created in the world of education. One of them, with the use of technological devices such as gadgets, learning activities are not only conventional or lecture only. This is in line with the concept of learning that utilises electronic devices or e-learning, which is to overcome the limits of space and time, so that the learning process can be done anytime and anywhere (Anshori, 2016). Based on the results achieved during the training process and after training which includes activeness, enthusiasm, and creativity in developing digital classes through the Google classroom application. It can be stated that the training activities that have been carried out are successful. A comparison of conditions before and after training activities is shown in Table 2

**Table 2.**  
Comparison Before and After Training.

BEFORE TRAINING	DURING TRAINING	AFTER TRAINING
DO NOT HAVE ENOUGH INSIGHT ABOUT THE DIGITAL CLASSROOM HAVE NO KNOWLEDGE ABOUT DIGITAL CLASSROOM DESIGN MODELS	Given insight into the Digital learning paradigm	90% of participants understand the digital classroom learning paradigm
HAVE NO KNOWLEDGE ABOUT DIGITAL CLASSROOM DESIGN MODELS	Given knowledge about digital classroom design models	90% of participants knew about digital classroom design models
DO NOT HAVE KNOWLEDGE AND SKILLS IN OPERATING THE GOOGLE CLASSROOM APPLICATION AND ITS IMPLEMENTATION IN LEARNING	Given knowledge and training on Google Classroom and its implementation in learning	90% of participants understand and are skilled at applying Google Classroom and its implementation in learning
DO NOT HAVE PRACTICAL SKILLS REGARDING DEVELOPMENT OF A DIGITAL-BASED LEARNING EVALUATION SYSTEM	Training in developing practical skills regarding the Development of a Digital-based Learning Evaluation System	90% of participants have practical skills in developing Digital-based Learning Evaluation Systems

Community service activities entitled Education and Training on Digital Classroom Design Development for Teachers of 4 SDs in Burneh District are community service activities that need to be carried out related to information on teacher problems in implementing online learning. Student learning activities tend to be passive which is reflected by the dominance of one-way learning by the teacher, so that learning outcomes are less meaningful.

Existing media in the form of textbooks and LKS do not help students improve their analytical skills because they are not accompanied by illustrations that can provoke students' curiosity/motivate students to learn more. (Supriyadi, 2014). Through the Google Classroom application, teachers can create material in the form of power points, videos or animated images. So it can improve students' analytical skills. Student response. The student response

to the use of audio-visual based learning media is very good. This can be seen from the increased student learning outcomes and the results of student answers from the response questionnaire sheet.(Salamah, 2017).

According to Piaget's theory, every individual when growing from a newborn baby to adulthood experiences four levels of cognitive development. The four levels of cognitive development are 1) Sensory motor (age 0 – 2 years) 2) Pre-operational (age 2 – 7 years) 3) Concrete operations (age 7 – 11 years) 4) Formal operations (age 11 years to adulthood). Based on Piaget's level of cognitive development, children in the age group 7-11 years according to Piaget are in their intellectual or cognitive abilities at the concrete operational level. Children see the world as a whole and consider the coming year as a distant time, what children care about is the present time (concrete), and not the future that children do not yet understand or abstract.

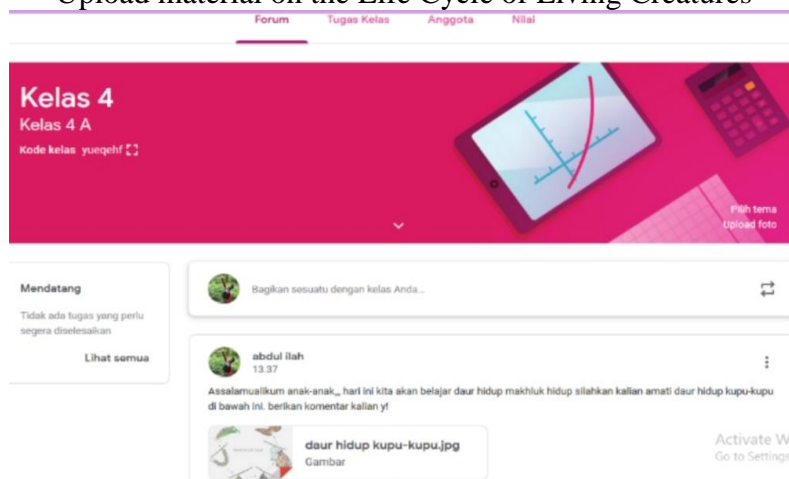
This training activity is one of the teacher's efforts in implementing the policy of the Minister of Education and Culture (Mendikbud) Nadiem Anwar Makarim, namely the Merdeka Belajar policy. Students can do learning anywhere and anytime without being limited by space and time.

This training teaches elementary school teachers about the digital classroom paradigm. One of the applications used is Google Classroom. The reason for choosing this application is because Google Classroom is an efficient feature, easy to use, and helps teachers in managing assignments. With Classroom, teachers can create classes, distribute assignments, give grades, send feedback, and see everything in one place.

After the training, teachers were able to install the Google Classroom application on their mobile phones or laptops. Teachers can create classes or join classes independently. The next step is for teachers to create classes according to the subjects they teach. Teachers can upload material in the form of videos, power points and so on. Teachers are also taught how to create assessment instruments according to the Google classroom application in the form of multiple choice or essays. Teachers are also able to assess students automatically.

In this research also uses a practical method and the last day there will be a simulation or microteaching. All teachers are expected to be able to implement digital classroom learning through google classroom application. The result of the first practice is that the teacher can install the google calssroom application and upload the material into google classroom as shown in Figure 1 below.

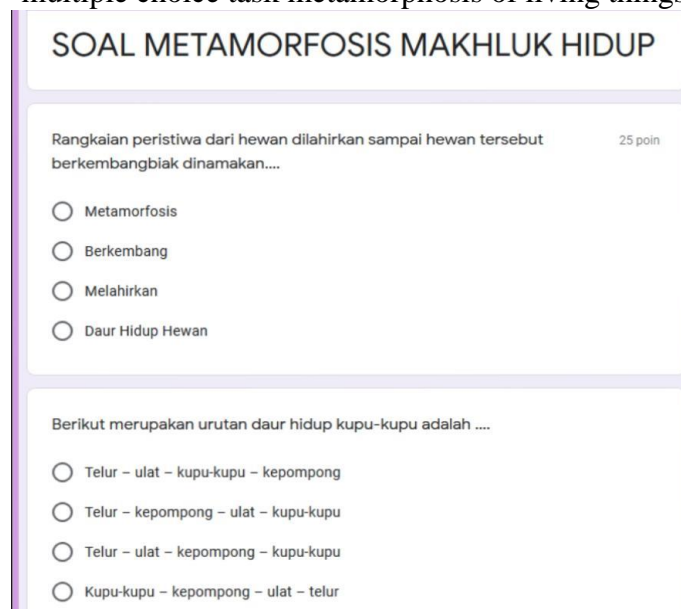
**Figure 1.**  
Upload material on the Life Cycle of Living Creatures



After practice 1 is all successful, the material will continue with the Development of a Digital-based Learning Evaluation System. Teachers are able to create learning evaluations through this application.

One of them is in the form of questions (essay) or multiple choice. All questions or questions can be shared with all students in the class. Examples of questions that have been made by teachers on the material of metamorphosis of living things as in Figure 2 below

**Figure 2.**  
multiple choice task metamorphosis of living things



After the teacher has finished creating the questions, the next step is to distribute them to all students. And the students did the task. By The grades will automatically appear and can be summarized by the teacher. Through the Google classroom application, students can learn independently according to the teacher's instructions. In the assignment, the teacher can make a deadline when the assignment is collected to teach students discipline in doing the

assignment. In the last session of this research, teachers must do microteaching in each group. The purpose of this activity is that teachers can directly practice digital classroom design according to the class they teach. It's just that some participants act as teachers and some act as students. Students are very enthusiastic about doing microteaching activities. To be a teacher, participants usually use a laptop to make it easier to upload material and evaluate learning Teaching practice activities in each group.

After the training, 90% of participants were able to do how to join a class to become a student and create a class to become a teacher. The teacher's task is to create a class, greet students, create assignments and assess. While the other participants as students with the task of joining the class, commenting on the teacher's greeting, answering the questions given by the teacher.

Teachers were very enthusiastic during the training. This is evidenced by 90% of teachers being able to create a digital classroom design through the Google classroom application. There are only a few obstacles including a rather difficult signal, especially in the regions, full memory so that it cannot install the google classroom application and so on.

Multimedia technology has promised great potential in changing the way a person learns, obtains information, adapts information and so on. Multimedia also provides opportunities for educators to develop learning techniques so as to produce maximum results (Sugianto, et al, 2013). Educators are expected to be able to utilise multimedia as a medium to deliver material so that in addition to making it easier and helping educators, multimedia that can be interactive can also make students feel more happy, attract attention, and not make students bored in the learning process so as to create an active atmosphere in learning. (Ula, 2018).

## **CONCLUSION**

This training activity is one of the teacher's efforts in implementing the policy of the Minister of Education and Culture (Mendikbud) Nadiem Anwar Makarim, namely the Merdeka Belajar policy. Students can do learning anywhere and anytime without being limited by space and time.

Without being limited by space and time. This activity was attended by 47 participants from several elementary schools in Burneh District. Based on the results of the evaluation that has been carried out, it is found that this activity can increase teachers' knowledge and skills in designing digital classes. The stages of the material provided in this training are 1) Digital Learning Paradigm, 2) Digital Classroom Design Model, 3) Google Classroom and its



implementation in learning, 4) Development of Digital-based Learning Evaluation System. This training method also uses Learning Simulation with Google Classroom Application. After all have understood the Google Classroom application. The trainees are expected to be able to explain this material to their school environment friends. Fun learning will make students enthusiastic in following the learning process. The smoothness of the activity is influenced by hardware and software such as signals, internet, gadgets and laptops.

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## **BIBLIOGRAPHY**

- Anshori, S. (2016). Strategi Pembelajaran di Era Digital (Tantangan Profesionalisme Guru di Era Digital).
- Departemen Geografi FMIPA UI. (2010). Jurnal geografi. *Jurnal Geografi*, 3(1), 204–215. <https://doi.org/10.1017/CBO9780511712029>
- Mahayukti G.A., & Suarsana. I M. (2013). Pengembangan E-Modul Berorientasi Pemecahan Masalah Untuk Meningkatkan Keterampilan Berpikir Kritis Mahasiswa. *Jurnal Pendidikan Indonesia*, Hal. 264
- Rozalia, M. F. (2017). Hubungan Intensitas Pemanfaatan Gadget Dengan. *Jurnal Pemikiran Dan Pengembangan SD*, 5(2), 722–731.
- Salamah, E. R. (2017). Pengembangan Media Pembelajaran Berbasis Audio Visual Tokoh-Tokoh Kemerdekaan Indonesia. *E-Journal.Unipma*, 7(1), 1–8. Retrieved from <http://e-journal.unipma.ac.id/index.php/PE>
- Suarsana, I. M. & Mahayukti, G. A. (2013). Pengembangan E-Modul Berorientasi Pemecahan Masalah Untuk Meningkatkan Keterampilan Berpikir Kritis Mahasiswa. *Jurnal Pendidikan Indonesia*, 2(2). 264-275
- Sugianto, D., Abdullah, A. G., Elvyanti, S., & Muladi, Y. (2013). Modul virtual: Multimedia flipbook dasar teknik digital. *Innovation of Vocational Technology Education*, 9(2).
- Supriyadi, A. (2014). Peningkatan hasil belajar geografi materi atmosfer dengan menggunakan aplikasi media pembelajaran digital (mpd) bagi siswa kelas x. 2 sma negeri I grobogan pada semester 2 tahun 2009-2010. *Jurnal Geografi: Media Informasi Pengembangan dan Profesi Kegeografian*, 11(1), 107-116.
- Ula, I. R., & Fadila, A. (2018). Pengembangan E-Modul Berbasis Learning Content Development System Pokok Bahasan Pola Bilangan SMP. *Desimal: Jurnal Matematika*, 1(2), 201-207.